

Our challenge, the frozen earth : soil formation under the maple forests in Quebec

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In this research study, we wanted to establish the pedogenesis in a Maple artificial plantation which is one type of the representative forest vegetation in Quebec, Canada. The investigation spots included two locations are two, and the survey items included are a soil profile investigation, soil crackle strength, soil temperature, soil pH, soil EC, soil respiration, and a crown observation. We had 30-40 cm of the snow of 30 - 40 cm on the investigation day in (the end of March,) and we confirmed a freeze state in the LFH layer and the upper part of the A layer of the soil. However, in places deeper than the lower part of the A layer was in a drying state and we did not confirm a freeze state there. It was revealed that the soil was softer than typical the general Japanese forest soil in both investigations by using with boring stick and a Hasegawa-type soil penetrometer. Next, we perform a comparison to Japanese soils with the general Canadian forest soil.

Keywords: Canada, Soil, Forestry